

What is claimed as the invention is:

1. A method for providing a comfort noise signal in a telephone, said method comprising the steps of:
 - 5 recording for a predetermined period the actual background noise occurring during a telephone call to produce a recorded signal;
playing back at least a portion of the recorded signal as comfort noise during the same telephone call.
- 10 2. The method as set forth in claim 1 wherein said playing back step includes the steps of:
 - dividing the recorded signal into segments;
 - reading the segments in random order.
- 15 3. The method as set forth in claim 1 wherein the recorded signal is digitally recorded in addressable memory capable of storing n bytes of data and said playing back step includes the steps of:
 - generating a start address;
 - applying the start address to the addressable memory;
 - 20 reading m bytes from memory, wherein $m < n$.
4. The method as set forth in claim 3 wherein said generating step includes the steps of:
 - generating a random number; and
 - 25 using at least a portion of the random number to create the start address.
5. The method as set forth in claim 3 wherein the steps recited in claim 3 are repeated for as long as desired but terminate with the telephone call.
- 30 6. The method as set forth in claim 1 and further including the steps of:
 - generating a random noise signal; and
 - combining the played back portion with random noise signal.

7. The method as set forth in claim 1 and further including the steps of:
generating a random noise signal;
attenuating the random noise signal;
attenuating the played back portion; and
5 combining the attenuated played back portion with the attenuated random noise signal.

8 The method as set forth in claim 1 and further including the steps of:
attenuating the actual background noise; and
10 combining the played back portion with attenuated actual background noise.

9. The method as set forth in claim 8 and further including the steps of:
generating a random noise signal;
attenuating the random noise signal;
attenuating the played back portion; and
15 combining the attenuated played back portion with the attenuated random noise signal and the attenuated actual background noise.

10. In a telephone circuit having digital data bus for audio signals and having
20 a comfort noise generator coupled between a line input and a speaker output, the telephone circuit characterized by an improved comfort noise generator comprising:

random access memory having address lines, data lines, and control lines;
wherein one of said control lines determines whether data is written to said
25 memory or read from said memory;
wherein said data lines are coupled to said data bus,
a counter coupled to said address lines, said counter having a data input and a clock input;
wherein said counter and said one control line cause said memory to store data
30 representing a predetermined period the actual background noise occurring during a telephone call and to play back at least a portion of said data as comfort noise during the same telephone call.

11. The telephone circuit as set forth in claim 10 and further comprising:
a random number generator coupled to said address lines for generating a start address for reading data from said memory.
- 5 12. The telephone circuit as set forth in claim 11 and further comprising:
a white noise generator;
a summation circuit coupled to said white noise generator and to said memory for combining the white noise with the recorded data to produce a comfort signal.

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